



## Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

## WINTER BIRDS OF THE SALTON SEA REGION

By A. VAN ROSSEM

THE species listed here were taken during the six weeks between December 1, 1910 and January 14, 1911. Localities worked were Brawley, about fifteen miles southeast of Salton Sea, Alamoria, five miles north of Brawley, and Mecca on the west end of the Sea and about a mile from it, making a very convenient base from which to work the Sea and surrounding country. The Alamo River running near Brawley on its way to Salton, and the country closely adjacent form an ideal collecting ground, and on the whole the most productive one worked.

The river itself is a muddy stream from thirty to fifty yards wide and runs in the channel carved by the Colorado on its recent outbreak, which formed the new Salton Sea. The steep, almost perpendicular banks are washed out in many places, resulting in gulleys often running back a mile or more and supporting such growth as dwarf cottonwoods and weeping willows. Near the outlet where worn down to the river's level, tule bordered inlets are the result, attracting such species as the Desert Song Sparrow, Tule Wren, and Western Yellowthroat. The country about is as flat as a table, and at some time most of it has been cleared and then abandoned. Now a dense growth of "inkweed" has sprung up and it is difficult to distinguish it from the natural desert about. There is also a little mesquite but not nearly as much as at Mecca.

Here are found the typical desert birds, Leconte and Crissal thrashers, Plumbeous Gnatcatchers, Roadrunners and Cactus Wrens. Nearer the towns of Brawley and Alamoria the whole country is a network of canals and irrigation ditches, and in planting time, flooded meadows. These last make a handy and convenient larder for the thousands of ducks for which Imperial Valley is noted, as well as Sandhill Cranes, Ring-billed Gulls and several species of shore birds.

I was much interested in the feeding time of the different birds which came from Salton to the grain fields. The ducks all fed at night, arriving in the fields about dusk and leaving usually before daylight for the safer Sea. There was no definite time though, as flocks could be heard coming and going at all hours of the night. But the Sandhill Cranes were as regular as the clock, passing over my tent every morning from 7:00, the earliest to 7:15, the latest, returning just at sundown. Gulls and other shore birds did not come until late, usually about 8:00 and leaving as early as four in the afternoon.

At Mecca were found many species either rare or entirely absent from the other end of the Sea, perhaps on account of the slightly cooler climate. Fine drizzles fell three times during my stay there. The greater attraction was undoubtedly the mistletoe, which at this time was covered with berries furnishing food for the Phainopeplas, Bluebirds and Robins. Cover, too, was more plentiful, several planted rows and groves of cottonwoods and much native mesquite.

Two species to be expected, the Sage Thrasher and Desert Sparrow were entirely missing. There were also several surprises, the most noteworthy being the English Sparrow, quite a little colony of a dozen pairs or more having established itself at Brawley about the main street and freight depot. No one seemed to know anything of their time of arrival.

Salton Sea is rapidly drying up, and for a mile from the present shore line is a stretch of white, even the bases of the dead mesquites and bushes being crusted with alkali. The Farallon Cormorants prefer to build in the tops of the trees about

fifteen or twenty yards out and one can see where the water has been for two springs previous by the old nests now high and dry.

Following is a list of the birds collected, or noted where identification is positive.

1. *Aechmophorus occidentalis*. Western Grebe. About a dozen individuals, well out to sea on January 8, were exceptionally tame and unsuspicious.
2. *Larus californicus*. California Gull. Abundant at the "neck" where the railroad trestle crosses the sea. Doubtless attracted by the refuse thrown from trains as well as by the swarms of fish which come for the same purpose.
3. *Larus delawarensis*. Ring-billed Gull. At Brawley large flocks fed every day in the flooded fields. All seen here were adults or nearing maturity, while at Salton nearly all seen were birds of the year. Not so common as the last.
4. *Phalacrocorax auritus albociliatus*. Farallon Cormorant. Abundant at Salton Sea. A favorite roosting place was the partly submerged telephone poles, though the tree-tops about a quarter of a mile out were well occupied.
5. *Pelecanus erythrorhynchos*. White Pelican. Seen almost every day at Brawley in large flocks, and at Salton Sea. As early as January 8 they had begun to pair and by the thirteenth couples formed the majority.
6. *Anas platyrhynchos*. Mallard. Seen only at the Alamo River in threes and pairs, usually in quiet inlets.
7. *Mareca americana*. Baldpate. Three noted in a market shipment December 25.
8. *Nettion carolinense*. Green-winged Teal. Small flocks of from four to eight seen on the Alamo, and one taken.
9. *Querquedula cyanoptera*. Cinnamon Teal. A male seen in the bag of a local hunter December 16.
10. *Spatula clypeata*. Shoveller. Perhaps the most common duck both at Brawley and Salton.
11. *Dafila acuta*. Pintail. Quite common at Brawley and on the Alamo. A few seen at Salton.
12. *Marila americana*. Redhead. One bunch of four on the Alamo River Dec. 4, and several others examined in market bags.
13. *Marila valisineria*. Canvas-back. One in a game shipment December 25.
14. *Charitonetta albeola*. Bufflehead. A flock of six, all females, at Salton Sea January 8.
15. *Erismatura jamaicensis*. Ruddy Duck. Several individuals noted at the river and one at Salton January 8.
16. *Branta canadensis* subsp? A flock of seven Canada geese passed close over my camp at Mecca January 12, but no specimens were taken.
17. *Ardea herodias treganzzii*. Treganza Blue Heron. One seen at Brawley December 12. Abundant at Salton Sea.
18. *Nycticorax nycticorax naevius*. Black-crowned Night Heron. Fairly common at Salton but not in the numbers of the last.
19. *Grus mexicana*. Sandhill Crane. About a hundred, usually split into two or three flocks, passed over every morning about 7:00. On several occasions they were accompanied by a solitary White Pelican whether the same individual or not I could not tell.
20. *Rallus virginianus*. Virginia Rail. Two at least and perhaps three stayed about a tule grown spring, and were seen closely several times.

21. **Porzana carolina.** Carolina Rail. One killed in tules at the Alamo River, December 25.
22. **Fulica americana.** American Coot. One flushed from the tules along the Alamo December 4, was the only one seen.
23. **Gallinago delicata.** Wilson Snipe. Quite common on the mud flats at the edge of Salton Sea.
24. **Pisobia minutilla.** Least Sandpiper. Two specimens taken from a small flock in a grain field at Brawley December 8. No others seen.
25. **Ereunetes mauri.** Western Sandpiper. Quite common along the edge of the sea in small flocks.
26. **Totanus melanoleucus.** Greater Yellowlegs. Common from December 1 to December 25 in the flooded grain fields. None seen at Salton.
27. **Oxyechus vociferus.** Killdeer. Common near water.
28. **Lophortyx gambeli.** Gambel Quail. Abundant in large flocks everywhere, but very wild. A favorite place was in the mesquite thickets along the Alamo. One adult male taken at Mecca January 14 has no black belly mark, its place being taken by fine black scales, like the markings on a male Valley Quail, but slightly smeared.
29. **Zenaidura macroura carolinensis.** Mourning Dove. Fairly common in small flocks at Brawley and Alamoria. None seen at Mecca.
30. **Cathartes aura septentrionalis.** Turkey Vulture. Quite common. A much used roost was a large eucalyptus grove near Brawley.
31. **Circus hudsonius.** Marsh Hawk. Common about cultivated fields. One adult male at Salton.
32. **Accipiter velox.** Sharp-shinned Hawk. One adult male at Brawley, December 25, the only one seen.
33. **Accipiter cooperi.** Cooper Hawk. Fairly common in the mesquite crowned ravines, along the Alamo.
34. **Buteo borealis calurus.** Western Redtail. Six individuals noted, five at Brawley and one at Mecca.
35. **Aquila chrysaetos.** Golden Eagle. One passed close overhead at Alamoria December 18.
36. **Falco mexicanus.** Prairie Falcon. Two seen at Brawley, one chasing a Mourning Dove. At Mecca I had a quail snatched up within ten feet of me by one of these birds.
37. **Falco columbarius.** Pigeon Hawk. Several seen at Brawley in the cottonfields.
38. **Falco sparverius phaloena.** Desert Sparrow Hawk. Rather common at Brawley and Alamoria. Rare at Salton Sea.
39. **Pandion haliaetus carolinensis.** Osprey. One seen on several occasions at Salton Sea where its favorite perch was a partly submerged telegraph pole.
40. **Aluco pratincola.** Barn Owl. One taken and two others heard. From the number of small rodents they should be abundant about Brawley, but for some reason they are almost entirely absent.
41. **Asio flammeus.** Short-eared Owl. Next to the Burrowing Owl, the most common Raptore. They seemed to take the place of the Barn Owl and often four or five would be flushed at once. Usually found in the driest places.
42. **Otus asio** subsp? A screech owl hooted every night at Brawley, but was too wild to be shot.
43. **Bubo virginianus** subsp? Horned owls were flushed from crannies in the sand cliffs on the Alamo on two occasions.

44. ***Speotyto cunicularia hypogaea***. Burrowing Owl. Abundant everywhere in suitable locations.
45. ***Geococcyx californianus***. Roadrunner. Fairly common, but from what I could gather it has been decreasing rapidly the last three years.
46. ***Dryobates scalaris bairdi***. Texas Woodpecker. One specimen taken and three others seen at Mecca.
47. ***Colaptes cafer collaris***. Red-shafted Flicker. Abundant in suitable cover, usually in small flocks of four or five.
48. ***Aeronautes melanoleucus***. White-throated Swift. Common at Mecca, especially on the lake shore.
49. ***Calypte anna***. Anna Hummingbird. One at Brawley December 18 and one at Mecca January 4 were the only ones noted.
50. ***Tyrannus vociferans***. Cassin Kingbird. One taken at Brawley and one seen at Mecca.
51. ***Myiarchus cinerascens***. Ash-throated Flycatcher. A male taken December 18 near Alamoria.
52. ***Sayornis sayus***. Say Phoebe. Common everywhere.
53. ***Sayornis nigricans***. Black Phoebe. Fairly common especially near Salton. Not so abundant as the last.
54. ***Empidonax griseus***. Gray Flycatcher. Two taken at Mecca in the mesquites January 5.
55. ***Pyrocephalus rubineus mexicanus***. Vermilion Flycatcher. One near Alamoria December 9 and another seen at Mecca January 3.
56. ***Otocoris alpestris pallida***. Sonora Horned Lark. Common by roadsides and in cultivated fields about Brawley and Alamoria. That these were *pallida* is supposition only, but Mr. P. I. Osburn took some winter specimens of this form but a few miles away at Calexico and in the same valley in 1908.
57. ***Corvus corax sinuatus***. Raven. Seen about every day usually in pairs.
58. ***Corvus brachyrhynchos hesperis***. Western Crow. Common around the outskirts of Brawley, but not seen elsewhere.
59. ***Molothrus ater obscurus***. Dwarf Cowbird. Quite common at Mecca in company with the Brewer Blackbirds.
60. ***Xanthocephalus xanthocephalus***. Yellow-headed Blackbird. Common at Brawley.
61. ***Agelaius phoeniceus sonoriensis***. Sonoran Redwing. Enormous mixed flocks of this and the last species raised havoc with the sprouting grain near Brawley.
62. ***Sturnella neglecta***. Western Meadowlark. Fairly common in small flocks in cultivated fields.
63. ***Euphagus cyanocephalus***. Brewer Blackbird. Common about the ranch houses and corrals.
64. ***Carpodacus mexicanus frontalis***. House Finch. Seen only at Brawley in the small park near the station, and only about half a dozen individuals. Possibly more abundant before the advent of the English Sparrow.
65. ***Astragalinus psaltria hesperophilus***. Green-backed Gold Finch. Small flocks noted on three occasions by the roadside near Alamoria.
66. ***Astragalinus lawrencei***. Lawrence Goldfinch. Abundant especially along the Alamo in the mesquites.
67. ***Pooecetes gramineus confinis***. Western Vesper Sparrow. Abundant along irrigation ditches and fields.
68. ***Passerculus rostratus***. Large-billed Sparrow. Three adults and four

birds of the year taken at a fresh-water spring surrounded by tules near Salton Sea.

69. **Chondestes grammacus strigatus.** Western Lark Sparrow. Common in cultivated districts and in Brawley.

70. **Zonotrichia leucophrys gambeli.** Gambel Sparrow. Abundant everywhere. Perhaps the most common bird.

71. **Zonotrichia coronata.** Golden-crowned Sparrow. Seemingly rare although many may have been missed in the large flocks of Gambels. One female juvenal taken December 18 the only one seen.

72. **Spizella breweri.** Brewer Sparrow. Common along weed-grown fences and in the cotton-fields.

73. **Amphispiza nevadensis.** Sage Sparrow. Abundant in dry bushy tracts.

74. **Amphispiza nevadensis canescens.** California Sage Sparrow. Associated with the last and in slightly larger numbers.

75. **Passer domesticus.** English Sparrow. About a dozen pairs in Brawley. As no old nests were observed about the buildings they are probably recent arrivals.

76. **Melospiza melodia fallax.** Desert Song Sparrow. Fairly common in the tules along the Alamo and at Salton Sea.

77. **Pipilo aberti.** Abert Towhee. Most abundant at Mecca in the mesquite thickets.

78. **Petrochelidon lunifrons.** Cliff Swallow. Common about reservoirs and flooded fields.

79. **Hirundo erythrogaster.** Barn Swallow. Usually to be seen with the three other species, mixed flocks being the rule. Both this and the last taken at Brawley on December 18.

80. **Iridoprocne bicolor.** Tree Swallow. Apparently the commonest swallow in all localities.

81. **Tachycineta thalassina lepida.** Violet-green Swallow. Not so common as the last.

82. **Phainopepla nitens.** Phainopepla. Abundant at Mecca feeding on the mistletoe berries.

83. **Lanius ludovicianus excubitorides.** White-rumped Shrike. Fairly common in all localities visited.

84. **Dendroica auduboni.** Audubon Warbler. Abundant everywhere.

85. **Geothlypis trichas occidentalis.** Western Yellow-throat. Fairly common but seemed to be confined to the tules.

86. **Anthus rubescens.** Pipit. Common along irrigation ditches and alkali flats at Salton Sea.

87. **Mimus polyglottos leucomelas.** Western Mockingbird. Heard one at Brawley. Common at Mecca.

88. **Toxostoma lecontei.** Leconte Thrasher. About a half a dozen individuals seen. Two secured December 9 and 16 showed no evidences of breeding.

89. **Toxostoma crissale.** Crissal Thrasher. Two taken at Alamoria. Quite common at Mecca.

90. **Heleodrytes brunneicapillus conesi.** Cactus Wren. About a half dozen seen at each place visited.

91. **Thryomanes bewickii bairdi.** Baird Wren. Fairly common at Brawley and Alamoria.

92. **Thryomanes bewickii charienturus.** San Diego Wren. Two specimens at Mecca.

93. *Troglodytes aedon parkmani*. Western House Wren. But one noted, an adult at Mecca, January 7.

94. *Telmatodytes palustris paludicola*. Tule Wren. Confined to the tule patches along the Alamo and at Salton.

95. *Auriparus flaviceps flaviceps*. Verdin. Two noted at Alamoria. Abundant in the mesquite at Mecca.

96. *Polioptila caerulea obscura*. Western Gnatcatcher. Noted only at Mecca in equal abundance with the next. As a rule found in trees while *plumbea* was more often seen in the low brush.

97. *Polioptila plumbea*. Plumbeous Gnatcatcher. Common in all three localities. Often seen in pairs.

98. *Regulus calendula calendula*. Ruby-crowned Kinglet. Several noted at each place. Most seen at Mecca.

99. *Planesticus migratorius propinquus*. Western Robin. Abundant about Mecca in the mistletoe-bearing mesquite. Two from Alamoria.

100. *Sialia mexicanus occidentalis*. Western Bluebird. A flock of about twenty hung about Mecca for two days.

101. *Sialia currucoides*. Mountain Bluebird. An adult male taken at Brawley December 12, the only one seen.

BIRDS FOUND AT MECCA, MARCH 18 TO 31, 1911

1. *Colymbus nigricollis californicus*. Eared Grebe. Several individuals and sometimes small flocks of from three to seven frequently seen at Salton Sea.
2. *Larus californicus*. California Gull. Common at the sea.
3. *Larus delawarensis*. Ring-billed Gull. Common. Adult birds already had the pure white head and neck of the breeding plumage.
4. *Phalacrocorax auritus albociliatus*. Abundant. Usually in large flocks about a mile off shore. No occupied nests were found and the birds had not yet taken on the breeding plumes.
5. *Pelecanus erythrorhynchos*. White Pelican. But one or two seen. Probably most had gone to their island, about thirty miles out, to breed.
6. *Dafila acuta*. Pintail. Fairly common in twos and threes in the weeds along shore.
7. *Marila affinis*. Lesser Scaup. A pair on a reservoir March 19.
8. *Charitonetta albeola*. Bufflehead. Three small flocks of two pairs each seen at the sea March 24.
9. *Nycticorax nycticorax naevius*. Black-crowned Night Heron. Several at Salton March 24. One or two roosted in the cottonwoods about a reservoir at Mecca.
10. *Ardea herodias treganzzii*. Treganza Blue Heron. Not as common as during the winter. A nearly white albino seen March 24 in company with a normal bird. The plumage showed a decided bluish tinge even at a distance.
11. *Grus mexicanus*. Sandhill Crane. Two small flocks stayed about the fields near Mecca.
12. *Recurvirostra americana*. Avocet. Two flocks of about thirty each seen near the boat landing, were very tame allowing a close approach. Some were in complete breeding plumage and others in every shade to nearly clear gray on the head and neck.
13. *Gallinago delicata*. Wilson Snipe. Seen nearly every day, usually in pairs. The ovary of a female taken March 22 contained an egg the size of a small pea.

14. **Pisobia minutilla.** Least Sandpiper. Common in small flocks at Salton.
15. **Ereunetes mauri.** Western Sandpiper. Not so common as the last and usually only three or four together. Both species still in winter plumage.
16. **Oxyechus vociferus.** Killdeer. Abundant near water. Several seen on the dry desert above Mecca.
17. **Aegialitis nivosa.** Snowy Plover. Two pairs met with March 26 on the alkali flats near the sea. A male and female taken showed no signs of breeding.
18. **Lophortyx gambeli.** Gambel Quail. Common. Nearly all were paired off by this time and as single males were often flushed they may have been breeding.
19. **Zenaidura macroura carolinensis.** Mourning Dove. About a dozen individuals seen.
20. **Cathartes aura septentrionalis.** Turkey Vulture. Seen nearly every day singly or in pairs. Dead carp on the seashore seemed to be a favorite diet.
21. **Accipiter velox.** Sharp-shinned Hawk. Two seen March 21.
22. **Buteo borealis calurus.** Western Red-tail. An adult stayed about camp during our entire stay.
23. **Aluco pratincola.** Barn Owl. But a single bird noted. On March 30 one flushed from a mistletoe covered mesquite.
24. **Speotyto cunicularia hypogaea.** Burrowing Owl. Not common. A few noted on the desert above Mecca.
25. **Geococcyx californianus.** Roadrunner. One observed at Salton March 24 was only one seen, though their tracks could often be seen in sandy places.
26. **Dryobates scalaris bairdi.** Texas Woodpecker. Two pairs taken in the burned brush near Mecca. This charred mesquite was alive with borers, which judging from the crops and stomachs of the specimens taken, formed the exclusive diet of these wood-peckers.
27. **Colaptes cafer collaris.** Red-shafted Flicker. Fairly common in the mesquite brush near Mecca.
28. **Chordeiles acutipennis texensis.** Texas Nighthawk. Appeared March 20, a single bird. By the evening of the 24th they were common. Dozens could be seen over a damp meadow near our camp, and over nearby reservoirs.
29. **Aeronautes melanoleucus.** White-throated Swift. Several about a damp meadow March 21.
30. **Tyrannus verticalis.** Arkansas Kingbird. March 21 a flock of eight arrived and two pairs soon had nesting sites picked out near the station.
31. **Myiarchus cinerascens.** Ash-throated Flycatcher. One specimen taken March 30 in the mesquites was the only one noted.
32. **Sayornis nigricans.** Black Phoebe. A pair could usually be seen on any reservoir or damp ground.
33. **Empidonax griseus.** Gray Flycatcher. Mr. Howard Wright who was with me took one March 20. Another seen on the 23rd.
34. **Pyrocephalus rubineus mexicanus.** Vermilion Flycatcher. One collected by Mr. Wright on March 21. Within a week three pairs were in the immediate vicinity of our camp.
35. **Corvus corax sinuatus.** Raven. Several seen along the railroad on the telephone poles.
36. **Molothrus ater obscurus.** Dwarf Cowbird. Common in pairs. Usually associated with the Brewer Blackbird.
37. **Agelaius phoeniceus sonoriensis.** Sonoran Redwing. About a dozen pairs stayed about the cottonwoods near the station. In this grove were also a pair of

Vermilion Flycatchers, a pair of Arkansas Kingbirds, a pair of Texas Woodpeckers, and dozens of Goldfinches, Brewer Blackbirds, and Gambel Sparrows.

38. *Sturnella neglecta*. Western Meadowlark. Fairly common in the grain fields and wherever there was sufficient grass for cover.

39. *Icterus cucullatus nelsoni*. Arizona Hooded Oriole. One taken March 28 and another seen the same day were the only ones noted. Possibly common later in the year.

40. *Icterus bullocki*. Bullock Oriole. Several seen every day, the majority being adult males. The numerous old nests hanging from the cottonwoods would show them to be more abundant in the nesting season.

41. *Euphagus cyanocephalus*. Brewer Blackbird. Large flocks stayed about the horse corrals and along the railroads and freight yard.

42. *Astragalinus psaltria hesperophilus*. Green-backed Goldfinch. Abundant. Several pairs had nests well under way by March 30, thread and cotton from the skinning table going largely in their makeup.

43. *Astragalinus lawrencei*. Lawrence Goldfinch. Nearly as common as the last, but they had not paired off and specimens collected showed no signs of breeding.

44. *Spinus pinus*. Pine Siskin. A flock of four noted on the evening of March 28, feeding on the cottonwood seeds. The next day they were common, going in flocks of from four to twenty. Their crops were stuffed with cottonwood seeds.

45. *Passerculus sandwichensis alaudinus*. Western Savannah Sparrow. The Large-billed Sparrows had disappeared from the tule marsh completely and their place was taken by this species, which was very abundant but wild.

46. *Zonotrichia leucophrys gambeli*. Gambel Sparrow. From March 18 to 25 this was by far the commonest bird. After this they thinned rapidly and the day I left (March 31) only three were seen in a fairly wide range of ground covered.

47. *Spizella breweri*. Brewer Sparrow. Fairly common on the desert flat above Mecca, sometimes in company with the Gambel Sparrows.

48. *Amphispiza nevadensis canescens*. California Sage Sparrow. Sage Sparrows were rather rare. Not more than half a dozen were seen and these on the desert country above Mecca.

49. *Melospiza melodia fallax*. Desert Song Sparrow. A male specimen taken March 20 was in breeding condition, but no nests were found. Sometimes they could be heard on the desert a mile or more from water, in the dense mesquite thickets which dotted the desert here, but generally they were near water.

50. *Melospiza lincolni*. Lincoln Sparrow. Common on our arrival, but rapidly grew scarce. The last one seen was taken March 27.

51. *Pipilo aberti*. Abert Towhee. Abundant. A nest with two incubated eggs found March 20 in a clump of mistletoe, a set of three fresh in a like situation March 21, and another set of two in an arrow-weed clump March 27. Many old nests were found in locations like the first two.

52. *Iridoprocne bicolor*. Tree Swallow. Common in flocks during our stay. They were most in evidence in the late afternoon about reservoirs and fields.

53. *Phainopepla nitens*. Phainopepla. Abundant. Breeding. There were eight occupied nests in the mesquite grove of about four acres in which we were camped, two building, two with eggs, and four with young in various stages (March 20). Two days before I left such young as were on the wing, and their parents were gathering in flocks of from half a dozen to fifteen each. It is not unlikely that many raise a brood before starting northward to their summer home.

54. *Lanius ludovicianus excubitorides*. White-rumped Shrike. In considerably less numbers than in winter. A nest was found March 21 with three young just able to fly and another the 27th with five pipped eggs, only five feet from the ground in an "inkweed" bush.

55. *Vireo vicinior*. Gray Vireo. A specimen collected March 26 in the mesquites, and another heard the same day.

56. *Vermivora luciae*. Lucy Warbler. An adult female taken in a mesquite over the tent on March 29.

57. *Vermivora celata lutescens*. Lutescent Warbler. Only one seen, an adult female collected on March 28.

58. *Dendroica auduboni*. Audubon Warbler. Abundant everywhere until March 25. After this they decreased rapidly in numbers and the last one was seen March 29.

59. *Dendroica nigrescens*. Black-throated Gray Warbler. On March 21 eight passed through and one was taken. No others were noted.

60. *Geothlypis trichas occidentalis*. Western Yellowthroat. In breeding condition but no nests found. Common.

61. *Wilsonia pusilla chryseola*. Golden Pileolated Warbler. Appeared March 22 (two birds seen), and were common from then until we left.

62. *Anthus rubescens*. Pipit. A single bird seen on the alkali flat near Salton Sea March 19, and one on the 22nd.

63. *Oreoscoptes montanus*. Sage Thrasher. Mr. Wright took a pair the evening of March 22 in the brush near a canal. Single birds frequently seen from then on.

64. *Mimus polyglottos leucomelas*. Western Mockingbird. A pair were building in a dead mesquite near camp and had a half completed nest on March 31. The bulk of those which were so common here in January were probably winter visitants only.

65. *Toxostoma crissale*. Crissal Thrasher. Fairly common but shy. Several nearly grown young with tail feathers about three inches long were taken, and were from two different nests. Mr. Wright found a nest in a clump of mistletoe March 21 which contained one egg evidently deserted. The adults were already in worn, ragged plumage—what they must look like by July!

66. *Heleodytes brunneicapillus couesi*. Cactus Wren. Two pairs with nests, the contents of which could not be ascertained, in the mesquites near camp.

67. *Thryomanes bewickii charienturus*. San Diego Wren. Not common. One of the two noted was collected and is this form.

68. *Auriparus flaviceps*. Verdin. Common. Many nests were found ready for eggs, usually surrounded by three or four dummies. Two sets were taken March 21 and 26, containing slightly incubated sets of four and three eggs respectively. All nests were in mesquite trees and the great majority under six feet from the ground.

69. *Regulus calendula calendula*. Ruby-crowned Kinglet. Several seen up to March 25.

70. *Polioptila caerulea obscura*. Western Gnatcatcher. Not common. One collected March 20 and another heard on the 21st.

71. *Polioptila plumbea*. Plumbeous Gnatcatcher. Abundant. Birds taken were nearly ready to breed. A nest found on March 30 was just begun.

72. *Planesticus migratorius propinquus*. Western Robin. Common. Feeding on the mistletoe berries, many of which were still hanging. Most of the robins left by the 25th and 26th of March, but one or two could be seen every day till the 29th.